~~[illegible]~~
File 343
acc. 2241

Cognitive Semantics according to Lakoff

Basic Level Concepts

Prototype theorists believe that our experience is *preconceptually* structured by our human interaction with the external environment. This level of structuring is characterized by three kinds of phenomena.

(i) *gestalt* perception

(ii) *mental* imagery

(iii) *motor movements*

Gestalt perception has to do with perceiving real entities in the real world as wholes, without any abstraction or analysis. It is at the level of gestalt perception that we accurately distinguish say,

cats from dogs,

tigers from elephants,

tables from chairs,

daisies from daffodils,

lettuce from broccoli,

Note that the kinds of item that we distinguish are the *natural* kind terms. We probably are unable to say precisely what characterizes a cat and what distinguishes a cat from say a dog. And yet, no one has any difficulty in recognizing a cat in practice, nor in distinguishing it from a dog.

Motor movements are the common motions that we go through like *running*, *walking*, *sitting down*, *eating*, *drinking*, *washing*, etc. These again we perceive and experience without any abstraction or analysis.

All these are *basic level concepts*. They are complete *wholes* and they lead to rich mental images. Basic level concepts are *not* the little building blocks that we use to build up more complex structures. They are already complex in themselves and although they can be thought of as having a part-whole structure, the whole is more psychologically real than the parts.

So we can think of two different kinds of cognitive models, building block structures

gestalt structures

A building block structure is a complex symbolic structure whose structural elements all exist independently, and the meaning of the whole is a function of (and therefore predictable from) the meaning of its parts.

A gestalt structure is a complex symbolic structure whose structural elements do not all exist independently of the whole, and whose overall meaning is not predictable from the meanings of its parts.

Illustration: the container schema is a gestalt structure because the schema has an INTERIOR, EXTERIOR and BOUNDARY. The interior would be meaningless were it not for the exterior and boundary; similarly for exterior and boundary.

Kinesthetic Image Schemas

By virtue of our bodily experience, there are a small number of kinesthetic image schemas that we perceive as continually recurring in the gestalts that we experience. These are

the container schema

the part - whole schema

the link schema

the center-periphery schema

the source-path-goal schema

We not only experience these schema physically, but we also extend them metaphorically to talk about less physical things.

Container schema

Bodily experience: We experience our bodies as containers (put things in and take things out, we also experience various objects, e.g. bowls, pitchers, rooms, cars etc as containers.

Structural elements: INTERIOR, EXTERIOR, BOUNDARY

Everything is either inside or outside the container.

Examples of containers:

- the visual field
- personal relationships
- states
- causality

Part whole schema

Bodily experience: We experience various parts of our body as belonging to the whole body and also in the way we look at common objects, e.g. trees, cars, etc.

Structural elements: A WHOLE, PARTS, A CONFIGURATION

Parts must exist in the right configuration, only then does the whole exist. If the whole exists, then its parts exist in the right configuration. But if only the individual parts exists but without the right configuration, then the whole does not exist.

Examples: Families are wholes with parts (parents and children).

Societies are wholes with parts.

Teams are wholes with parts (members).

Tasks are wholes with parts (subtasks).

Link Schema

Bodily experience: umbilical cord, we hold onto things, string and rope hold things to each other.

Structural elements: Two (or more) ENTITIES A, B, C and LINKS between them.

Examples: Social and interpersonal relationships, e.g. husband-wife, boss-employee, etc.

Center-Periphery Schema

Bodily experience: Our own bodies have central parts (trunk & internal organs).

Other objects, such as trees do too (central: trunk, peripheral: twigs, leaves).

The center is more important, and defines the identity of the individual. The periphery depends on the center, but not vice versa.

Structural elements: ENTITY, CENTER, PERIPHERY

Examples: Theories have central and peripheral principles.

Situations have central and peripheral items in them.

Words have central and peripheral usages.

Source-Path-Goal Schema

Bodily experience: Whenever we move we start from some place, and we pass through a series of locations on the way.

Structural elements: SOURCE (starting point), DESTINATION (end point), PATH (a series of locations along the way), DIRECTION

Examples: Purposes are thought of as destinations. Achieving a purpose is thought of as a journey from the starting point along a path to an end point.

Complex events are thought of as having a SOURCE-PATH-DESTINATION schema. (Imagine telling the dishwashing crew how to do their job, or telling someone how to solve a linguistic problem. See how this is like giving a stranger directions on how to get from A to B.)

[illegible]

Spatialization of Form Hypothesis

Abstract structures like categories, hierarchies, relations, radial structures (prototypes etc) foreground-background, etc can be understood in terms of the image schemas.

In particular:

categories are understood in terms of container schemas

hierarchies are understood in terms of part-whole and up-down schemas

relational structure is understood in terms of link schemas

radial structure is understood in terms of center-periphery schemas

foreground-background structural is understood in terms of front-back schemas

Propositional Cognitive Models

the simple proposition

the scenario (or script)

the feature bundle

the taxonomy

the radial category

The Simple Proposition

A simple proposition is an example of a part-whole schema and of a link schema.

The whole is the proposition.

The parts are the arguments (realized by nouns) and the predicate (realized by verbs).

There are links between the arguments and the predicate which are the semantic roles (e.g. agent, patient, instrument, etc..

The scenario has

an initial state

a sequence of events

a final state.

A scenario is an example of a part whole schema

a path schema

and a link schema.

The part-whole correspondences along the path are

initial state = source

final state = destination

events = location on the path.

Each of the above elements is a part, the scenario is the whole.

Many concepts are characterized in terms of particular scenarios (or script); thus, for example, the concept waiter is characterized in terms of the restaurant script.

Example: The restaurant script.

John went into the restaurant. He stood there waiting. The waiter came and showed him to a seat. John sat down. The waiter brought him a menu. John read the menu. John decided to order and beckoned the waiter. The waiter came and took John's order. John waited. The waiter went to the hatch and repeated John's order to the kitchen. They prepared John's order and the waiter served the food to John. John ate the food. The waiter came and asked John if he wanted something else. John asked the waiter for the bill. The waiter calculated the amount, wrote out the bill and gave it to John. John paid the bill with his credit card, left a tip and left the restaurant.

Feature bundle structures.

A feature bundle is a collection of properties. The bundle is characterized by a container schema with the properties inside the container. Classical categories can be represented by feature bundles. Examples; feature matrices characterizing sounds, components characterizing word meanings in componential analysis.

Classical Taxonomic Structures

Classical taxonomies (like for instance lexical taxonomies or meronomies) are inventions of the human mind. They do not necessarily correspond to image schemas.

A hierarchy is represented by

a part-whole schema, with a higher-order category (mother node being a whole, and the immediately lower categories (daughter nodes) being the parts.

an up-down schema with the mother nodes above the daughter nodes.

The sister nodes should represent non overlapping i.e. mutually incompatible categories. In practice this may be hard to always maintain.

Each node is defined in terms of its feature bundle. This is often OK, but sometimes there are doubtful fits (e.g. is 'ostrich' a bird, is 'tomato' a vegetable or a fruit, 'squid' a fish?).

Classical (non-graded) categories and graded categories

Categories and categorization are related to the container-schema with an interior, and exterior and a boundary.

Classical (non-graded) categories correspond to containers with the following properties,

(i) The members of the category are inside the container; the non members outside.

(ii) The boundaries of the container are sharp.

(iii) There is no structure or subdivision within the container.

Example: complementaries like alive:dead,
inside:outside

Gradable categories also correspond to containers, but these containers have rather different properties, viz.,

(i) the boundaries of the container are fuzzy (not sharp); they have a width (which you could define by a scale of values between 0 and 1, where 0 means completely outside and 1 means completely inside the container. Thus any individual could have a degree of membership between 0 and 1.)

Examples:

e.g.. tall man	A 6'8" man would be a clear example, a 5'9" would be a fuzzy boundary example.
hot day	A 115 degrees F day would be a clear example, an 85 degrees F day a fuzzy one.
rich man	A $5,000,000 a year man would be a clear example, a $40,000 a year man a fuzzy example.
long phone call:	A 45 minute call would be a clear example, a 10 minute call would be a fuzzy example. The assessment would depend on whether it was an international or a local call, also on the viewpoint of the speaker.

untidy room

All the above gradings depend on the viewpoint of the speaker which in turn depends on his/her cultural and experiential background.

Radial categories

A radial category is again related to the container schema. But there is also a center-periphery schema superimposed upon it (so in this respect it is unlike the classical category.)

The 'best example' is the center, the other subcategories are linked to the center by various kinds of links.

Example of radial category: mother

Central case:

Mother who is married to the biological father, gave birth to the child, nurtures the child, is the child's legal guardian.

Non central cases:

Stepmother: married to the biological father, nurtures the child, is the child's legal guardian.

Adoptive mother: nurtures the child, is the child's legal guardian.

Birth mother: gave birth to the child, (and puts the child up for adoption).

Foster mother: nurtures the child.

unwed mother: (not married at the time of birth).

(Other examples: doctor, bed)

How do radial categories differ from graded categories. It is important not to be confused between the two.

Metonymy & Metonymic models

Where a part (or subcategory or member or submodel) stands for the whole category.

Illustration:

Mother: stereotype is the mother who is also a housewife and looks after her children.

Working mother: the following are working mothers:

Mother in a two parent family who goes to work and comes home to look after her child.

A stepmother who goes to work and comes home to look after the child.

A widow with a child who goes to work and comes home to look after her child.

An unwed mother who works and comes home to look after her child.

A woman who adopts a child, goes out to work and comes home to look after her child.

The following are not working mothers:

Unwed mother who gives up her child for adoption and then goes to work.

Surrogate mother (someone who had a child for someone else, the child now living at someone else's home) who goes to work.

The subcategory housewife-mother (or nurturance mother) is taken to characterize the whole category. This is the prototype--the house wife-mother is regarded as the best example of a mother. The subcategory has a socially recognized status as standing for the category as a whole, especially when it comes to making quick judgements about people.

A working mother is not simply a mother who works. In order to be a working mother,

(i) She needs to come home to look after the children (nurturance model).

(ii) The work she does needs to be doing paid work and the work must be done away from home (stereotyped concept of work).

Prototypes

From the various kinds of category structures, set out above we can arrive at the following kinds of prototypes.

From metonymy

Let B be a category with various members in it. Let A be the social stereotype or the typical case or the ideal, etc. Then A is the best example of B and A stands metonymically for B. A is the prototype.

e.g. the category of 'mother'

The stereotype is the mother who is married to the biological father, gave birth to the child, nurtures the child, is the child's legal guardian.

From radial categories

Let B be a category with radial structure, and A be a member at its center. Then A is the best example of the category B and is the prototype.

From graded categories

Let B be a category that is graded. Let A be a member of degree 1. Then A is a best example of B (there may be many best examples).

Which of the categories below are "working mothers"?

A missionary mother who spends all day running a literacy program and then comes home to look after her child ?

A mother in a two parent family where the mother takes courses on campus and then comes home to look after her child ?

A mother during SIL who takes courses and leaves her child in childcare most of the day ?

A missionary mother who spends most of the day teaching the children at home and then looks after them?

A mother who spends most of the day as a helper at church work (or helping at an SIL center) and comes home to look after the child?

A missionary mother who spends most of the day teaching children at an Inter Missions School (without pay!) and then comes home to look after the child?

A woman who is an authoress of best sellers but who stays home to do her writing and who looks after her children at home?

Body Parts to Express Prepositional Relations in San Estevan, Atatlahuca Mixteco

or Why bother to have prepositions when you already have perfectly good body parts?

Data by courtesy of Ruth Mary Alexander

1. head 'on top of'

ĩ́ĩ̃	*de*	*šinì*	*ƀé?e*
stand	he	HEAD	house

He is in the attic/He is on the roof.

2. face 'onto'

ni	*n+̇nga*	*kūñu*	nuù	*ñũ̃?ũ*
comp.	fell	meat	FACE	ground

The meat fell onto the ground.

3. back 'on'

žósó	*ƀe?e*	*de*	s+k+̀	*kaƀa*
on top of	house	his	BACK	rock/cliff

His house is on the rock.

4. side 'beside'

ni	*kukòo*	*de*	xikà	*žuú*	*(xikà 'side,ribs')*
comp.	sit down	he	SIDE	rock	

He sat down beside the rock.

5. side 'beside'

ni	*kukòo*	*de*	*šĩĩ*	*žúú*
comp.	sit down	he	SIDE	rock

He sat down beside the rock.

6. back of shoulders 'behind'

ni	*kukòo*	*de*	*žatà*	*zuú*
comp.	sit down	he	BACK OF SHOULDERS	rock

He sat down behind the rock.

7. mouth 'edge'

ĩi	*de*	*žu?u*	*ndúte*
stand	he	MOUTH	river

He is standing at the edge (i.e. bank) of the river.

8. foot 'at the foot of'

ĩĩ	*tɨ*	xe?è	*žuNu*
stand	it	FOOT	tree

It (the animal) is standing at the foot of the tree.

9. intestines 'in'

néne	*de*	ini	*ƀe?e*
sits	he	INTESTINES	house

He is in the house (He lives in the house??).

10. stomach 'under'

nástútú	*nduxí*	*séhe*	*tɨ*	*čixi*	*ndixèn*	*tɨ̀*
gathers	hen	child	it	STOMACH	wings	it

The hen gathers its chicks under its wings.

11. path 'towards'

(a)

ni	*xẽhẽ*	*de*	*iči*	*ñúū*
comp.	went	he	path	town

He went towards town.

(b)

žā?a	*kĩ́?ĩ̄*	*žo?ó*	*řó*	*te*	*lado*
here	go	straight	you	and	side
ici	*ndáváha*	nuù	*káne*	*niàndii*	
PATH	right	FACE	rises	sun	

Go straight here and toward the right where the sun rises.
(Note: iči 'PATH' means 'toward'; nuù 'FACE' means 'where' i.e. 'facing that direction'.)

Body parts for benefactives

12. back 'for the benefit of' or foot 'for the benefit of'

(a)

ni	*sáNiñu*	*i*	sɨkɨ̀	*naná*	*i*
	worked	he	BACK	mother	his

He worked for his mother's benefit.

(b)

ni	*sáNiñu*	*i*	xe?è	*naná*	*i*
	worked	he	FOOT	mother	his

He worked for his mother's benefit.
(compare these with 3 and 8 respectively)

RADIAL CATEGORIES
Women, Fire and Dangerous Things

Dyirbal (Australia) has four noun classes with the following membership.

I bayi class:
- men
- moon, storms, rainbows, three species of willy-wagtail birds
- kangaroos, possums, bats, most snakes, most fishes, most insects, boomerangs. some spears
- fishing spears, fishing line
- hawks

II balan class:
- women
- sun, crickets, most birds
- hairy mary grub

- water, swamps, rivers, anything connected with water

- fire
- light, stars, matches, pipes (for smoking)
- spangled drango

- shields, some spears
- fighting ground

- stone fish, gar fish,
- two stinging trees, stinging nettles

III balam class:
- all edible fruit, tubers, ferns,
- all trees and plants that bear edible fruit,
- honey, cake, cigarettes, wine

IV bala class:
- body parts, meat, bees, wind, yamsticks, some spears, most trees, mud, stones, noises, language

Dixon's schema that characterizes the above classes.

I bayi:
- human males, animates

II balan:
- human females, water, fire, fighting

III balam:
nonflesh food

IV bala:
everything not in the first three classes (waste basket!).

Note that gender distinctions do not apply to non humans. The above schema takes care of most of the obvious cases. Two extra principles are necessary which accounts for most of the others.

1. Domain of experience principle: If there is a basic domain of experience associated with an item A, then entities in that domain will tend to be in the same noun class as A.

2. Myth and belief principle: Myth or belief takes precedence over other criteria in deciding which class an item belongs to.

The domain of experience principle accounts for

fishing spears and fishing lines being in the same class I as fishes

shields, some spears, and fighting ground being in the same class II

light and stars being in the same class II as fire, as also are matches and pipes (for smoking)

trees and plants that bear edible fruit being in the same class III as the edible fruits themselves

The myth and belief principle accounts for

storms and rainbows being in class I because they are mythical men
moon being in class I because moon is a husband (of sun), hence a man, hence class I

sun being in class II, because it is a wife (of moon), hence woman, hence class II
crickets being in class II, because they are (mythically) old ladies
most birds being in class II, because they are (mythically) spirits of dead human females

spangled drango being in class II, because it is (mythically) the bringer of fire

hairy mary grub being in class II, because it has a sting which feels like a sun burn (combination of domain of experience and myth and belief principles)

3. Dixon has a further important-property (or harmfulness) principle: If a subset of nouns has some important property that the rest of the set does not have, then this subset may be assigned to a different class from the rest of the nouns in the set. The most important property is "harmful".

   Thus stone fish and gar fish are harmful, and so are in class II (but most fish are in class I)

   Also hawks are harmful, and so are in class II (but most birds are in class II)

   And two stinging trees and stinging nettles are harmful and so are in class V (but most trees are in class IV)

The following properties of the Dyirbal classification are important:

1. Centrality Dixon's schema takes care of the central or basic members of each category. Thus

   women, water, fire, fighting

   are the central (basic) members of class II,

   sun, crickets, spangled drangos

   are less central ones, while

   hairy mary grub

   is even less central.

2. Chaining Central members are linked to less central members of the same class by chains; e.g.

women ——————> sun - - - - - - - - - - sunburn
(myth) (experience)
[illegible]
hairy mary grub

3. Experience can determine membership of particular items

4. Mythology takes precedence over general knowledge in determining class membership.

Wor [illegible]

The Brugmann-Lakoff Analysis of 'over'

This is an analysis of the common physical and metaphorical meanings of 'over'. The following sentences are considered.

The bird flew over the yard.

The bird flew over the hill.

The bird flew over the wall.

Sam drove over the bridge.

Same walked over the hill.

Sam climbed over the wall.

Sam is over the bridge.

Sam lives over the hill.

The painting hangs over the fireplace.

The line stretches over the yard.

The board is over the hole.

The city clouded over.

The pond froze over.

The soap suds spread over the table.

The guards were posted all over the hill.

The fleas were all over the bed.

I walked all over the field.

The flies crawled all over the wall.

The fence fell over.

He turned the paper over.

The water overflowed.

Sam overworked.

Sam did it over.

You have overlooked his accomplishments.

John oversees the operation.

He looked over my corrections.

She has strange power over me.

Sam was passed over for promotion.

The following different senses of 'over' are postulated. Each sense corresponds to a subclass of usages.

The above and across sense (schema 1)

The above sense (schema 2)

The covering sense (schema 3)

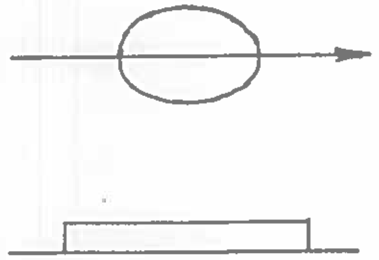
The reflexive sense (schema 4)

The excess sense (schema 5)

The repetition sense (schema 6)

There are also various metaphorical extensions based on the above.

Schema 1 The above and across sense



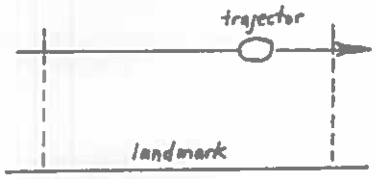
Schema 1

Properties
1. the across sense gives a feature [+path]
2. there can either contact between trajector and landmark or non-contact, i.e. [+contact] or [-contact]
3. the landmark can be horizontally extended [+extende or horizontally nonextended [-extende
4. the landmark can be vertical [+vertical], or non vertical [-Vertical]

features

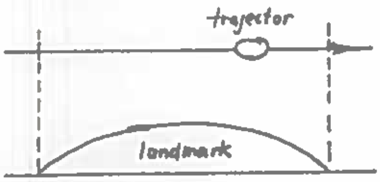
TR [illegible]

[-contact]



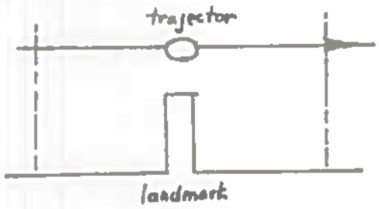
The bird flew over the yard

Schema 1
+extended
-vertical
-contact
+path



The bird flew over the hill

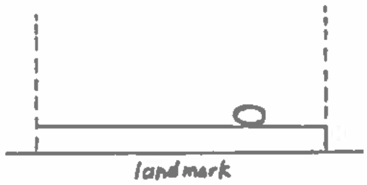
Schema 1
+extended
+vertical
-contact
+path



The bird flew over the wall

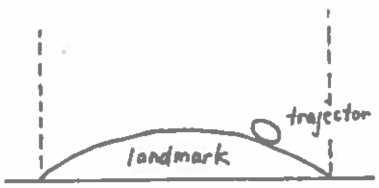
Schema 1
-extended
+vertical
-contact
+path

[+contact]



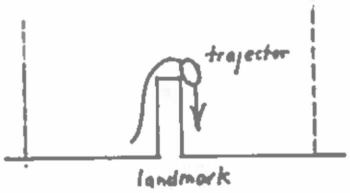
Sam drove over the bridge

Schema 1'
+extended
-vertical
+contact
+path



Sam walked over the hill

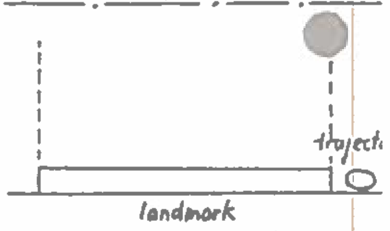
Schema 1
+extended
+vertical
+contact
+path



Sam climbed over the wall

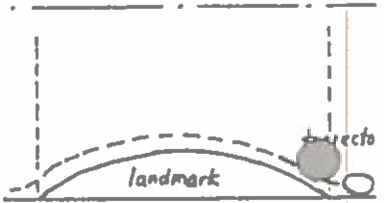
Schema 1
-extended
+vertical
+contact
+path

+contact
+end point focus



Sam is over the bridge

Schema 1
+extended
-vertical
+contact
+path
+end point focus



Sam lives over the hill.

Schema 1
+extended
+vertical
+contact
+path
+end point focus

Schema 2 – the above sense

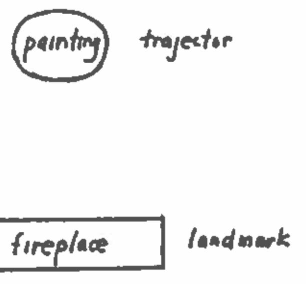
there is never any contact [-contact]

characterizing features → never any path [-path]

[illegible]

Schema 2
Contrasts with Schema 1
by being static

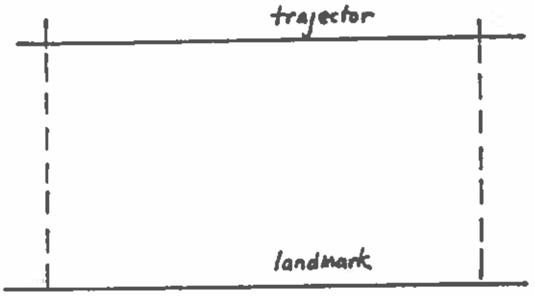
Schema 1 [illegible]
static



The painting hangs over the fireplace

Schema 2
[-extended
-vertical
-contact
-path]

The helicopter is hovering over the hi

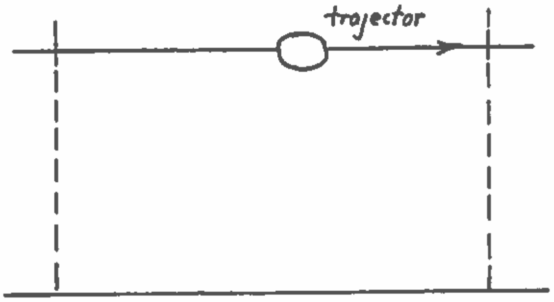


The line stretches over the yard

Schema 2
[+extended
-vertical
-contact
-path
+one dimensional trajector]

related to

since a line is one dimensional



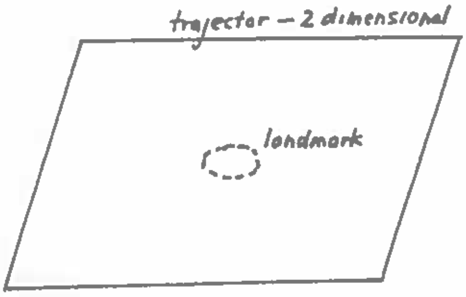
The bird flew over the yard.

Schema 1
[+extended
-vertical
-contact
+path]

the [illegible] could be [illegible]
[illegible]
or even circular

Schema 3 : The covering senses.

The trajector must be at least two dimensional ; it is unmarked for contact.

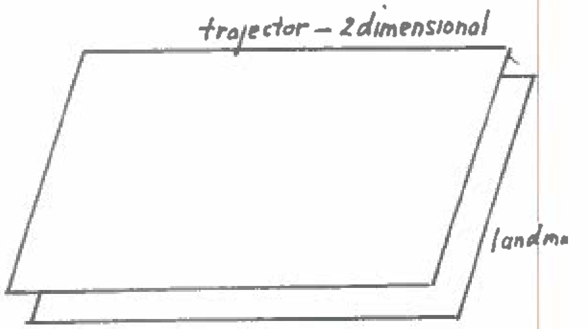


The board is over the hole

Schema 3 [–path]

[illegible]

The flies hovered all over the carpet



sky — [illegible]

the city clouded over — Telic

the pond froze over

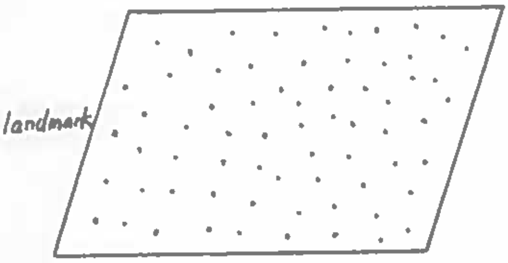
the soap suds spread over the table.

contour

Schema 3 $\begin{bmatrix} +\text{path} \\ +\text{extended}^2 \\ +\text{end point focus} \end{bmatrix}$

There is always motion to the final configuration; hence the end point focus feature is +

THE PLUS MULTIPLEX CONFIGURATIONS



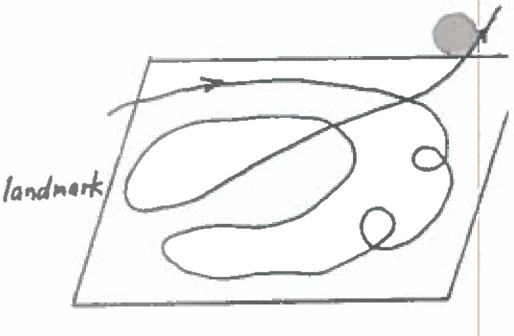
The guards were posted all over the hill

The fleas were all over the bed.

Schema 3 $\begin{bmatrix} +\text{multiplex} \\ -\text{path} \\ +\text{extended}^2 \end{bmatrix}$

[+multiplex] means a large collection of points spread over the whole area.

+ multiplex ≡ all



a. I walked all over the field

b. The flies crawled all over the wall [+rotated

Schema 3 $\begin{bmatrix} +\text{multiplex} \\ +\text{path} \\ +\text{extended}^2 \end{bmatrix}$ OR $\begin{bmatrix} +\text{multiplex} \\ +\text{path} \\ +\text{extended} \\ +\text{rotated} \end{bmatrix}$

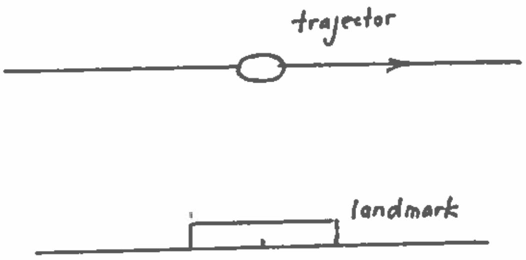
(a) (b)

[+multiplex][+path] means a path going through a large collection of points covering the whole area.

The flies were all over the room
extended^3

Schema 4 (reflexive of schema 1)

[illegible]

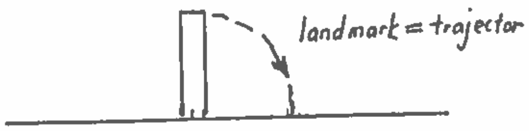


The plane flew over

Schema 1 [+path]

−reflx

$$\begin{bmatrix} -\text{extended} \\ -\text{vertical} \\ -\text{contact} \\ +\text{path} \end{bmatrix}$$



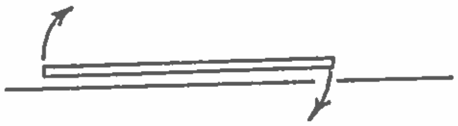
John fell over

The fence fell over

Schema 4 $\begin{bmatrix} +\text{path} \\ +\text{reflexive} \end{bmatrix}$

It was the landmark itself that fell over; hence the [+reflexive].

Also the centre of gravity of the fence moves; hence the [+path]. (Contrast below).



He turned the paper over

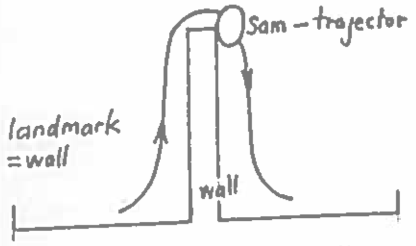
Schema 4 $\begin{bmatrix} -\text{path} \\ +\text{reflexive} \end{bmatrix}$

Clearly landmark = trajector again.

Also the centre of gravity of the trajector (paper) does not necessary change position from initial to final position; hence [-path]

Schema 5 : The excess schema (derived from schema 1)

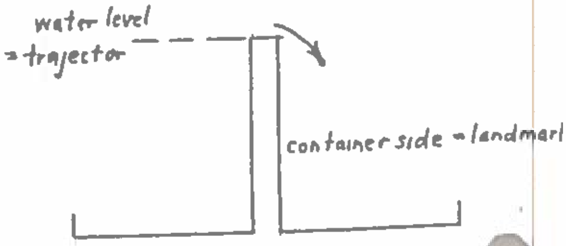
physical



Sam climbed over the wall

Schema 1 $\begin{bmatrix} -\text{extended} \\ +\text{vertical} \\ +\text{contact} \\ +\text{path} \end{bmatrix}$

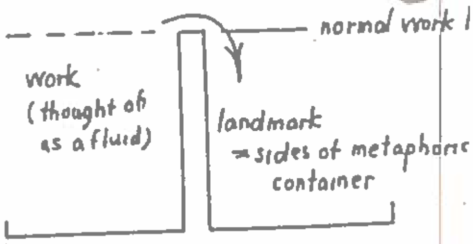
physical (derived)



The water overflowed.

Schema 5 physical

metaphorical (derived from above)



Sam overworked

Schema 5 : metaphorical

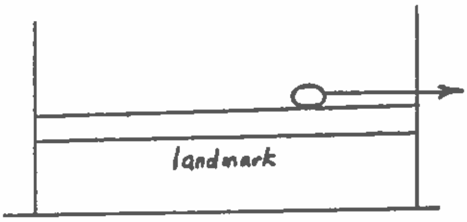
work is regarded as a fluid that can fill a
container and can overflow.

Sam overdid it overspent
amount of energy [illegible]

[illegible]

Schema 6: The repetition schema (derived from schema 1)

physical



Sam drove over the bridge

Schema 1

[+extensive
+contact
+path
−vertical]

metaphorical

Sam did it over

Schema 6

Metaphorically:

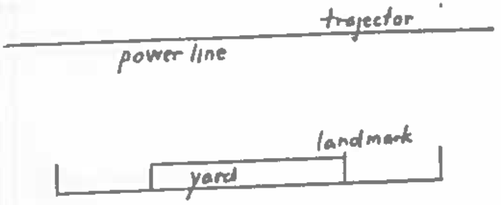
activity is a journey
the landmark is an earlier completed performance of the activity considered.
the trajector is the doing of the activity.
the activity is extensive, and is [+path]
i.e has a beginning and an end.

[illegible]
is going on a journey

like walking over [illegible]

Metaphorical extensions.

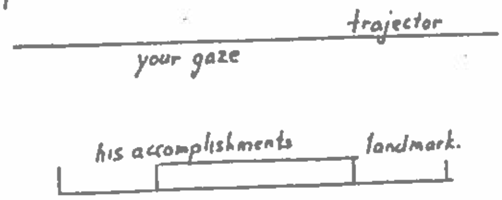
physical



The power line stretches over the yard.

Schema 2
+ path
+ one dimensional trajectory
− contact

metaphorical



You have overlooked his accomplishments.

Schema 2 (metaphoric)
+ path
+ one dimensional trajectory
− contact.

Metaphorically [illegible]
seeing is touching
looking at something is taking into considerat

your gaze is the trajector
his accomplishments is the landmark.

The trajectory does not touch the landmark ; henc
The trajectory does not see the landmark, ie
You have not seen his accomplishments , hence
You have not considered his accomplishments.

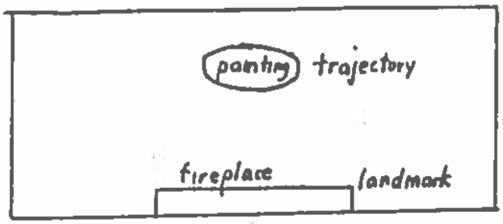
eye contact

hands
keep your eyes on him
his eyes (like fingers) picked out my [illegible] at the [illegible]
keep your [illegible] on him

looking ~~at~~ = take into consideration
I'll take a look at it = I'll consider it
overlook = look but no contact
= not look at
= not consider

Metaphorical extensions

physical



The painting is over the fireplace

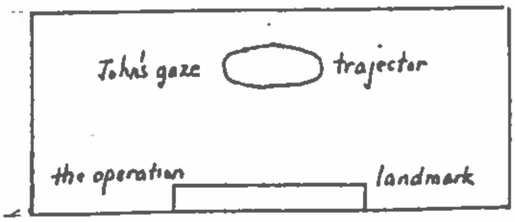
Schema 2 [−path
−contact]

I have control over him
am on top of the problem
His power rose.

Did you see that it gets done?

John [illegible] the [illegible]
your room is clean by the time
[illegible] they arrive

metaphorical



John oversees the operation

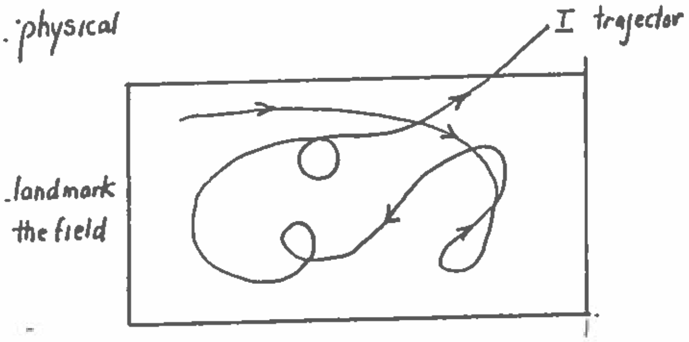
Schema 2 (metaphorical) [−path
−contact]

Metaphorically control is up, no control is down
seeing something is done means making sure something gets done.

John's gaze is trajector — it can pass over
the operation is landmark

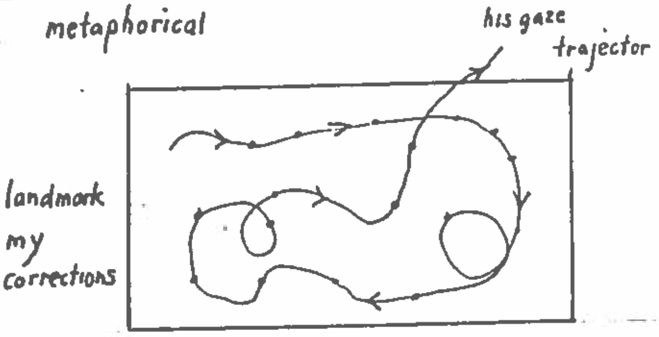
The trajector is above the landmark, so has control over
thus:
John sees the operation from a position of control.
thus:
John has control over the operation and makes sur
it gets done.

physical



I walked all over the field

metaphorical

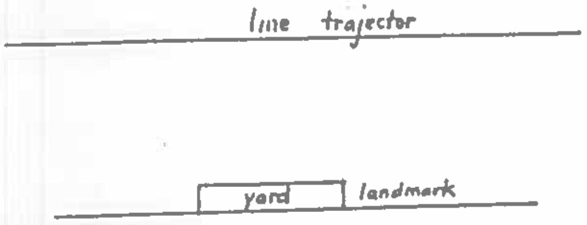


He looked over my corrections

[illegible] John overlooked my [illegible]

Metaphorical extensions

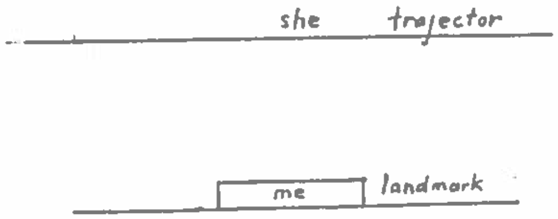
physical



The power line stretches over the yard

Schema 2 [+one dimensional trajector]

metaphorical



She has strange power over me.

Schema 2 [+one dimensional trajector]

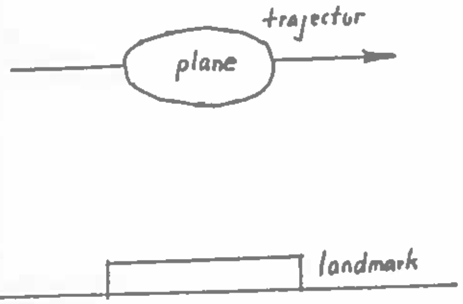
Metaphorically

control (power) is up, lack of control is down

she is the trajectory (up)

I am the land mark

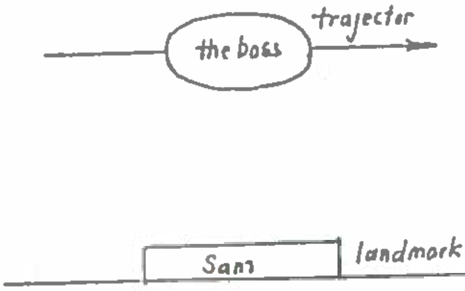
physical



The plane passed over

Schema 1 [+path]

metaphorical



Sam was passed over for promotion (by the b

Schema 1 [+path]

Metaphorically

control is up, lack of control is down

the boss is the trajector

Sam is the landmark. – has no control

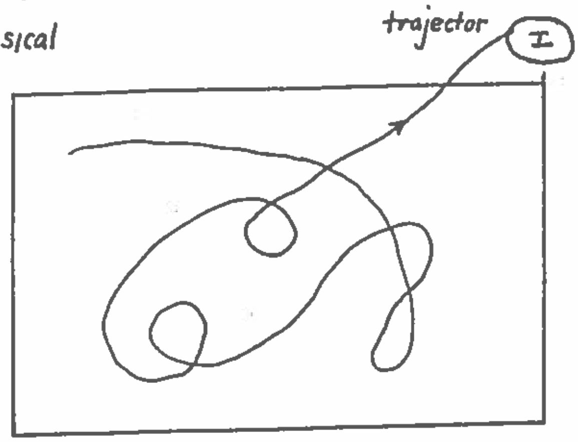
choosing is touching

He was picked for the team
chosen

no contact ∴ no choosing

Metaphorical extensions

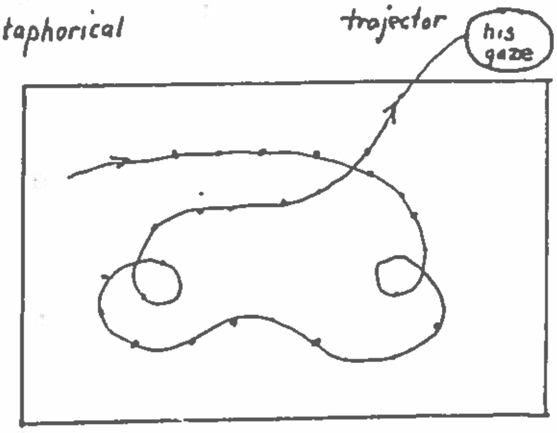
physical



I walked all over the field

Schema 3 $\begin{bmatrix} \text{+ multiplex} \\ \text{+ path} \\ \text{+ extended}^2 \\ \text{+ contact} \end{bmatrix}$

metaphorical



He looked over my corrections

Schema 3 $\begin{bmatrix} \text{+ multiplex} \\ \text{+ path} \\ \text{+ extended} \\ \text{+ contact} \end{bmatrix}$

Metaphorically

Looking at something is taking it into consideration

his gaze is the trajector

my corrections is the landmark

The trajector touches the landmark, so he sees the corrections and takes them into consideration.